TRENDS AND DISPARITIES IN HEPATIC FAILURE RELATED MORTALITY AMONG US ADULTS WITH COLORECTAL CARCIOMA,1999-2020

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Introduction

Colorectal cancer and hepatic failure are significant global health challenges, often interlinked with metastatic progression and impaired liver function. Understanding their association is essential for advancing preventive strategies, health care planning and improving survival outcomes in affected population.

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Methodology

We analyzed CDC WONDER data (1999-2020) for adults ≥25 with hepatic failure (K72) and colonic carcinoma (C18). We categorized age-adjusted mortality rates (AAMRs) per 100,000 by demographic and regional distribution. Joinpoint regression analysis was performed to calculate annual percent changes (APCs) stratified by year, sex, race/ethnicity, urbanization, and geographic region with 95% confidence intervals.

Results

Total deaths: 19,590

By Gender:

Men had consistently higher AAMRs than women (0.5 vs. 0.3)

By ethnicity: (highest to lowest AAMR)

Non-Hispanic (NH) Black or African American population has the greatest AAMR (0.53), followed by the White population (0.39), NH American Indian or Alaska Native with AAMR (0.35) and the Asian or Pacific Islander with AAMR (0.89).

By Region:

Northeast region had the highest AAMR (0.42) followed by other regions (West:0.41; Midwest:0.40; South:0.39).

By Urbanization:

Non-Metropolitan areas had higher AAMR (non-core areas: 0.50; micropolitan areas: 0.46) than metropolitan areas (large central metropolitan: 0.38; large fringe metro: 0.37; medium metro: 0.40; small metro: 0.39).

Conclusion

Between 1999 and 2020, mortality from hepatic failure and colonic carcinoma declined substantially across sex and race groups, with progress slowing after 2010. The Midwest, Florida, and California showed the steepest declines, while urban areas experienced greater reductions than rural counterparts, underscoring geographic disparities..